

ABSTRACT OF THE DISCLOSURE

A process for the production of methanol comprises feeding an amount of a hydrocarbon feedstock and an amount of an oxygen feedstock to a partial oxidation reactor to produce a partial oxidation reactor effluent comprising hydrogen, carbon monoxide and carbon dioxide; adding an amount of a hydrogen feedstock to the partial oxidation reactor effluent to produce a synthesis gas stream having a predetermined ratio of hydrogen to carbon monoxide; and, subjecting the synthesis gas stream to methanol synthesis to produce a methanol product stream and a tail gas stream wherein reformation is not used to provide hydrogen as a product. Reformation may be used to consume hydrogen so that carbon dioxide preferably obtained as a by product of another process so that the instant process becomes effectively a temporary carbon sink to convert carbon dioxide, which would otherwise be released to the atmosphere, to a stored carbon source.